



Case study



Niagara Falls City Schools Says “Bon Voyage” to Antiquated Security Screening with Evolv

Niagara Falls School District

LOCATION: Niagara Falls, NY

K-12 STUDENTS ENROLLED: 7,011

SCHOOLS: 8 Elementary Schools, 2 Middle Schools, 1 High School

WEBSITE: www.nfschools.net

Solution Snapshot

Goals

- Address concerns arising from a spike in school violence after return from COVID
- Ensure students get to their first class on time, without foregoing the quality of security provided
- Reduce 50% alarm rate generated by hand-held metal detectors
- Integrate security screening into VMS and mass notification systems
- Implement security screening for outdoor events like football games and graduation ceremonies

Solution

People

- Coordinated with STANLEY Security to help the Niagara Falls team to evaluate the Express system through hands-on efficacy testing
- Evolv Solutions Engineering worked with STANLEY Security to deliver on-site training, deployment, and ongoing support

Process

- Consecutively configured and deployed Evolv Express® systems at 12 different buildings
- Implementation of Evolv Express systems by STANLEY Security
- Trained Safety Officers and teachers assigned to security screening before Express deployment at each school
- Worked with the Safety Director to optimize Evolv Insights to capture analytics used to improve the efficiencies and effectiveness of the team
- Helped the Safety Director readjust ConOps to align with new security screening processes

Technology

- 16 Evolv Express Dual- and Single-lane Systems
- 1 Outdoor Evolv Express Dual Lane System
- Evolv Cortex AI®
- Evolv Insights®
- Integrations:
 - 225 Security Cameras
 - Auto-dialer Mass Notification System

Outcomes



Reduced nuisance alarm rates by around 80%



Produce detailed analytics for daily review and monthly review with school board



Decreased security screening time by around 75%



Able to integrate security screening technology into security cameras, mass notification, and other security investments



Screening over 7,000 students, teachers, administrators, and visitors daily



Received positive feedback from parents and caregivers, teachers and staff, and students



Screened over 4,000 graduation attendees within one hour



The Evolv Express provides students with a sense of pride. Niagara Falls City Schools Superintendent Mark Laurrie recently sent 21 of his students to a large theme park for a leadership conference, where they walked through the Evolv Express. He received texts from those students talking about how they noticed it was the same system at their school, and how excited they were that their school took the same care with, and provided the same technology to their students as internationally renowned brands do to their visitors.

Journey from Student to Parent, and now to School District Leader with 40 Years of Experience

Mark Laurrie has spent over 40 years in the Niagara Falls City School District.

He started in the district as a classroom associate. He subsequently took on assignments of greater scope and responsibility: Dean of Students, Assistant Principal, Principal, Deputy Superintendent, and most recently Superintendent. "I know the school district inside and out," he says. "In addition to my work for the district, I am a graduate of the school district and also had three children go through the school district."

Laurrie's unique perspective in the school district means ties him integrally to the community it serves. Though delivering the best education possible for his district is his passion, he is adamant that it can't happen unless students feel safe and welcome at school. Proactively addressing this has become an intrinsic part of Laurrie's agenda as Superintendent.

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- Mark Laurrie, Superintendent, Niagara Falls City School District



Post-COVID Spike in Violence Prompts Response

After observing a spike in school violence when students returned to school following the COVID pandemic, Laurie and the Board of Education embarked on a search to bolster the district’s security posture.

“When our schools returned to session after COVID, we had an uptick in violence. These weren’t necessarily weapons related, but fights,” he remembers. “After 18 months of being away from each other, our students lost their sense of getting along with each other.” The issue came to a head when 30 to 40 teachers attended a board meeting, expressing tangible concerns over the safety of students and themselves.

Niagara Falls implemented 225 security cameras at its different buildings back in 2000. “We implemented other security measures over the years,” Laurie continues. “We concluded that some form of technology was needed to screen students, visitors, parents, teachers, and others when they arrive at school. We always had some members on the Board of Education who felt we needed to install metal detectors in our schools.”

In response, the district added hand-held metal detectors at the Niagara Falls High School in October 2021. “We put together a comprehensive security plan focused on investments in technology, including the hand-held metal detectors, and added more safety officers,” he says.

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Metal Detectors Made Schools “Feel Like Prison”

Immediately after adding the metal detectors, it became apparent that they created numerous problems.

“We felt that our schools needed to be safe,” Laurrie observes. “We place a premium on making our schools a welcoming environment. However, the screening process with the metal detectors made our environment resemble a high-security prison or government office. Students should be able to flow through as many doors as possible, in as many locations as possible, and feel as welcome as possible.” School is a safe haven for many kids, and a place for learning, where they should be able to focus on their education without concerns about their safety.

However, the process brought on by hand wands began to directly interfere with the students’ education.

Hand-held metal detectors in schools inevitably create a situation where students, and their safety, are subject to those operating the wands. With the repetitive, intrusive, and slow nature of the process, operators – teachers in this case – fall victim to the fatigue and frustrations typically brought on by standard metal detectors. “Our hand-wanding was only as good as the person using the wand,” Laurrie says. “We also had to conduct a body and bag check without any knowledge of where the purported threat was located. It took nearly an hour to get students through the metal detectors. We were literally giving away an entire period at the beginning of the day. Teachers weren’t happy because kids were coming into their first period all the time.”

At the same time, many students and parents felt the hand-held metal detectors were disruptive and inefficient. “Lines piled up out of our front door,” Laurrie recalls. “If we had bad weather and it was snowing or raining, this was a real problem because we’re in Upstate New York.” Additionally, these lines create soft targets outside of the school, leaving students vulnerable to more than ornery New York weather.

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Resourcing Metal Detectors Were a Problem

Laurie found that security effectiveness was a growing problem with the metal detectors.

Specifically, many operators get hyper-focused on standard hiding spots for prohibited times and may miss something cleverly hidden when going through their routine search. “You’re not able to search the finer points in coats or bags,” Laurie describes. “Someone can hide weapons in places other than their coat pockets and bag and the metal detectors would miss them.”

Ironically, the metal detectors negatively impacted overall security at the high school, often reducing the security perimeter by monopolizing resources at the front doors. The metal-detector process required a lot of resources for Laurie’s staff to manage. “It took upwards of 20 security staff to manage the metal-detector process. For some of these staff, that meant they were taken away from their other posts in the hallways where their supervision mitigates potential violence.”



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Evaluating and Selecting the Evolv Express[®]

Laurrie and other administrators in the school district concluded they needed a different approach.

“We needed security screening that was unobtrusive, seamless, and stylistic,” Laurrie recalls. “If you go to the movie theater or to a professional sporting event, you pass through security screening and no one thinks about it.”

Niagara Falls had hired the former Chief of Police for the city as their Safety Director when the new comprehensive security plan was instituted in October 2021. “He is highly skilled, and I gave him the charter to research the best weapons metal detection system on the market.”

The Niagara Falls Safety Director found out about Evolv Technology in a conversation with the Spartanburg, South Carolina School District 6. “He ultimately concluded that the Evolv Express system was the least intrusive, most thorough, and most comprehensive weapons detection system out there,” Laurrie says.

To finalize their decision, the Niagara Falls team visited a local professional sports stadium with Express systems installed. This onsite testing was facilitated by the Evolv Security Solutions Engineer and the district’s account manager from STANLEY Security, which serves as its security vendor. “We spent an afternoon at their site testing out any number of use cases,” Laurrie reports. “Our maintenance director brought one of his legal guns and put it in various places on his body and in his bag. The Express detected it every time.”

Niagara Falls was also impressed with the artificial intelligence (AI) capabilities of the Evolv technology, and the flexibility it provides. “We’re not buying a technology for today, but rather a solution that constantly improves over the lifespan of our investment,” Laurrie notes. “The artificial intelligence in Evolv Cortex AI ensures that the technology evolves to meet changes in the threat landscape and changes in our own environment. This stands in stark contrast with the metal detectors we were using.”

One of the advantages Evolv offered is the fact that it doesn’t run on the district’s computer network. Laurrie explains: “Evolv works independently from the cloud, which was a huge requirement for our IT Director due to cyberattack concerns and data privacy and security requirements in New York State Education Law 2-D.”



Getting the Word Out to the Community about The Express Installation

To prepare students, parents, caregivers, teachers, and staff for the rollout of the Express systems at the high school and preparatory (middle) schools, Laurrie and the administrative team at Niagara Falls tapped into a breadth of different communication channels used by the school district.

“We put it in our newsletter and announced it in our auto-dialer system that reaches 16,000 households. Each of our principals spoke about the planned deployment with their students. We also broadcast it out across our social media.”

Niagara Falls’ initial investment in Evolv was for its high school and two preparatory schools. STANLEY Security and Evolv assessed each of the buildings where the Express systems were to be installed and helped configure their deployment based on traffic flow. They also worked with the district’s Safety Director to update the district’s ConOps documentation and procedures.

Before the launch of the Express systems, Safety Officers and teachers assigned to security screening attended training sessions with the Evolv and STANLEY Security teams. “The training process for Evolv is very straightforward,” Laurrie notes. “Our training for teachers who manage the Flow Control positions literally took 20 to 30 minutes. We obviously spent more time training our Safety personnel and those managing the Alarm Resolution positions at the secondary screening tables. But it was a very seamless process for our staff to learn.”

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Rolling Implementation of Evolv Across All Schools

The deployment at the Niagara Falls High School was very smooth and was followed by subsequent seamless rollouts at the district’s two preparatory schools—two Evolv Express dual-lane systems and one single-lane system at the high school, and single-lane system at each of the district’s two preparatory schools.

With those implementations successfully completed, the district elected to add single-lane Express systems at each of its elementary schools, as well as its’ central office. See Table 1 below:

School	Express Dual Lane	Express Single Lane	Ruggedized Express Dual Lane
Niagara Falls High School	2	1	1
Gaskill Preparatory		1	
LaSalle Preparatory		1	
79 th Street Elementary		1	
Harry F. Abate Elementary		2	
Cataract Elementary		1	
Hyde Park Elementary		1	
Henry J Kalfas Elementary		1	
Geraldine J. Mann Elementary		1	
Maple Ave. Elementary		1	
Bioneva Bond Primary		1	
Central Office		1	

Table 1. Evolv Express distribution in the Niagara Falls School District.

“We wanted to have a consistent deployment across the district, and the ability to configure the single-lane, dual-lane, and mobile systems depending on the location gives us the flexibility to do so,” Laurie says. “With the Express systems installed at all the additional locations, we screen more than 6,000 students, visitors, teachers, and staff every day.”

With the initial and expanded rollouts, Niagara Falls wanted to ensure that everyone who comes to one of the schools in the district is screened by an Express system. He describes: “If you’re presenting to one of the classes, you go through an Express. If you’re a teacher, you pass through one. If you’re an administrator, you go through one. We even require our Board of Education members to go through the Express when they attend a board meeting. No one gets a pass.”



Evolv’s Portability and Flexibility Makes Gamedays Easier

For the Niagara Falls High School, Laurie indicates they wanted to have the flexibility to screen attendees at outdoor events such as football games and graduation ceremonies.

As a result, they selected a Ruggedized Outdoor Express dual-lane system. “It is really easy to set up, tear down, and store,” he says.

Reducing Resources, Human Error, and Screening Bias

Looking back at the 20 staff needed per school and the high volume of complaints from parents and students about the intrusiveness and fallacy of hand-wand screening, Niagara is experiencing a night-and-day situation.

Niagara Falls now uses 3 operators per Express screening lane - one greeting students as they pass through the Express lane, one watching the Flow Control Tablet, and one in the Alarm Resolution position for secondary checks.

Laurie also notes that the Alarm Resolution position with the Express is a game-changer for students and operators alike. “The beautiful thing about Evolv is the red box that appears on the tablets when a potential threat is detected. It marks the exact area of the person’s body or bag where it is located. Unlike the processes we had in place with the metal detectors, Evolv minimizes bias. Threat detection is objective and the red box on the Evolv tablets enables us to focus on a specific area where the threat was detected.”

Now that the Express systems have been in use for more than a year, Laurie indicates that the district’s Safety Director is sending everyone back through Evolv training. “We want to ensure our staff running the Express systems are getting the most out of the technology,” he comments.

Screening is Part of a Multi-layered Approach to Security

Laurrie explains that Evolv is one part of the district’s larger “security scaffolding strategy.”

Our approach always starts with people,” he says. “People are the linchpin. But you need the right machinery in place, such as Evolv, to enact a truly effective strategy.”

Integrating Evolv technology into this bigger security ecosystem is next on the district’s list of priorities. The security cameras across the different school campuses are one area. “We are working to integrate those into our Express systems,” Laurrie says. “This will provide us with real-time visibility of our security screening locations in our security operations center. We also plan to integrate our mass notification system into the Express systems later this year when we migrate to a new auto-dialer system. Evolv’s Open API makes it extremely easy to integrate our existing security technologies into our Express systems.”

Screening with Evolv Insights® Analytics in Mind

The district’s Safety Director was trained by Evolv’s Customer Success Manager on Evolv Insights® analytics.

He pulls and reviews reports regularly to understand entrance flow and potential threats detected for each Express system down to five-minute increments. This data is then integrated into the school’s security plans. “We have monthly security planning meetings and are assessing Insights analytics from the prior month at each of those,” Laurrie says. “In the future, this data will be used to adjust the security sensitivity levels and staffing for each Express system.”

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Faster Screening, Lower Alarm Rates, and Better Security

The district is very pleased with the results it has achieved with the help of Evolv. Improved screening efficiencies enabled the district to reduce the number of staff at each entrance to the high school.

“Previously, we had to allocate all five of our Safety personnel and another 10 to 15 teachers to manage the metal detectors and secondary screening checks at the high school,” Laurie says. “With Evolv, we reduced this number to nine—a more than 50% reduction. This has a ripple effect, as the teachers who worked at security screening with the metal detectors were able to return to their areas in the building to monitor hallways and classrooms prior to the first period starting.”

The amount of time for students to pass through security screening has been slashed 75%—to less than 15 minutes at peak times. This enables students to get to class on time and focus on their education.

The district also reduced its alarm rate with metal detectors by nearly 80% after migrating to Evolv. This alone has had cascading effects on the student population, who understand and appreciate that Evolv is looking for weapons and not at people. “Students felt targeted with the metal detectors,” Laurie says. “That isn’t the case with the Express system.”

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Niagara Falls Delivers on Promise to Enhance Student Experience

Evolv is delivering on the district's promise to remove potential bias from the security screening process.

"Secondary checks with Evolv are unintrusive and immensely easier and faster than with our metal detectors," Laurrie says.

Removing potential bias and starting the day with a non-intrusive interaction opens the door for students and adults to develop better relationships at the start of their day. Because the security personnel are free to interact with the students positively, rather than through a regimented security routine, the school safety officers and teachers get more facetime with students when they first arrive from school. "This gives them a chance to get to know the students better," he adds. "Additionally, I have not seen a negative comment following the deployment of the Express systems. With the metal detectors, we got complaints that we were violating the rights of students and that we were overly intrusive with our secondary checks. That has gone away with Evolv."



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Evolv Graduates with “Flying Colors”

For graduation last year, which was held outdoors in the summer, Laurrie decided to use the district’s Ruggedized Express dual-lane system for screening attendees.

“We had over 4,000 people come to the event and were able to screen and get them into the location in a relatively short period of time with just one system. This would have been impossible to do with the metal detectors.”

On a daily basis, the results are top-of-the-class as well. With Evolv, students can get to class faster and can have time to socialize, have breakfast, or attend supplemental learning times. “They don’t need to wait in line,” Laurrie observes. “They can go get breakfast. Previously, students were missing 15 or 30 minutes of their first class and administrators and teachers had to reschedule learning times. Teachers are happy to get back this time now. And students are no longer coming into class throughout first period and disrupting learning.”

“If It Is Good Enough for Them, It Is Good Enough for Us”

Having Evolv at the school provides students with a sense of pride of their school and district.

Laurrie relates the following story: “We recently sent 21 students to a major theme park in the U.S. for an academic conference. They have the same Evolv systems we do at their entrance. I received texts from some of the students telling me that the theme park uses the same technology as us. They were excited and proud that their school is investing in them and providing them with the best. If it is good enough for places like these internationally renowned theme parks or professional sports stadiums, then it is good enough for us.”



Contact us to learn more about helping to create safer zones where you live, learn, work, or play.

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